

1/25

MPGFYEIVIKVPSDLDEHLPGISDSFVNWVAEKEWELPPDSMDLNLIEQAPLTVAEK
 LQRDFLTEWRRVSKAPEALFFVQFEKGESYFHMHVLVETTGVKSMVLGRFLSQIREK
 LIQRIYRGIEPTLPNWFVAVTKTRNGAGGGNKVVDECYIPNYLLPKTQPELQWAWTNM
 EQYLSACLNLTERKRLVAQHLTHVSQTQEQNKENQNPNSDAPVIRSKTSARYMELVG
 WLVDKGITSEKQWQIEDQASYISFNAASNSRSQIKAALDNAGKIMSLTKTAPDYLVG
 QQPVEDISSNRIYKILELNGYDPQYAASVFLGWATKKFGKRNTIWLFGPATTTGKTNIA
 EAIHTVPFYGCVNWTNENFPFND CVDKMVIWWEEGKMTAKVVESAKAILGGSKVR
 VDQCKKSSAQIDPTPVIVTSNTNMCAVIDGNSTTFEHQQPLQDRMFKFELTRRLDHDF
 GKVTKEVVKDFFRWAKDHVVEVEHEFYVKKGGAKKRPAPSDADISEPKRVRESVAQ
 PSTSDAEASINYADRYQNKCSRHVGMNLMFLPCRQCERMNQNSNICFTHGQKDCLEC
 FPVSESQPVSVVKKAYQKLCYHHIMGKVPDACTACDLVNVDLDDCIFEQZ

FIGURE 1

atgccgggggtttacgagattgtgattaagggtccccagcgaccttgacgagcatctgccggcatttctgacagcttctgaaactgggtgg
 ccgagaaggaatgggaggtgccgccagattctgacatggatctgaatctgattgagcaggcaccctgaccgtggccgagaagctgca
 gccgacttctgacggaatggcggcggtgtgagtaaggccccggaggcccttttctgtgcaattgagaaggagagagctacttcca
 catgcacgtgctgtggaaccaccgggggtgaaatccatggttttgggacgtttcctgagtcagattcgcaaaaactgattcagagaatt
 taccgcggtgatcgagccgactttccaaactggttcgcggtcacaaaagaccagaaatggcgccggaggcggggaacaagggtgtgga
 tgagtgtcatcatcccaattactgtctcccaaaacccagcctgagctccagtgggcggtgactaatatggaacagtatttaagcgctgt
 ttgaatctcacggagcgtaaacgggtgtggcgagcatctgacgcacgtgtcgcagacgcaggagcagaacaaagagaatcagaat
 cccaattctgatgcgccgggtgatcagatcaaaaacttcagccaggtacatggagctggcggtgggtgtgtgacaaagggtgattacctc
 ggagaagcagtggtatccaggaggaccaggcctcatatctcttcaatgcggcctccaactcgcgggtccaaatcaaggctgccttg
 gacaatgcgggaaagattatgagcctgactaaaaccgccccgactacctgtgtggccagcagcccgtggaggacatttcagcaat
 cggatttataaaattttgaaactaaacgggtacgatcccaaatatgcggcttccgtcttcttgggatgggcccacgaaaaagttcggcaaga
 ggaacaccatctggtgttttggcctgcaactaccgggaagaccaacatcgcggaggccatagcccacactgtgcccttctacgggtg
 cgtaaacctggaccaatgagaactttcccttaacgactgtgtcgacaagatggtgatctgtgtggaggaggagggaagatgaccgccaag
 gtcgtggagtcggccaaagccattctcggagggaagcaagggtgcgcgtggaccagaaatgcaagtcctcggcccgatagaccgac
 tcccgtgatcgtcacctccaaccccacatgtgcgcgtgattgacgggaactcaacgaccttgaacacagcggcgtgtgacgac
 cggatgttcaaatgtgaactcaccgcccgtctggatcatgactttgggaagggtcaccagcaggaagtcaaaagacttttccggtgggca
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 agtgagcccaaacgggtgcgcgagtggtgcgcagccatcgcgtcagacgcgggaagcttcgatcaactacgcagacaggtacca
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 ctacggacagaaagactgtttaagtgcttcccggtgcagaatctcaaccgtttctgtcgtcaaaaaggcgatcagaactgtgtctac
 attcatcatacatgggaaagggtgccagacgcttgactgcctgcgatctggtcaatgtggatttgatgactgcatttgaacaataa

FIGURE 2

MPGFYEIVIKVPSDL DGHLP GISDSFVNWVAEKEWELPPDSMDLNLIEQAPLTVAEK
 LQRDFLTEWRRVSKAPEALFFVQFEKGESYFHMHVLEVTTGVKSMVLGRFLSQIREK
 LIQRIYRGIEPTLPNWFAVTKTRNGAGGGNKVVDECYIPNYLLPKTQPELQWAWTNM
 EQYLSACLNLTERKRLVAQHLTHVSQTQEONKENQNPNSDAPVIRSKTSARYMELVG
 WLVDKGITSEKQWIQEDQASYISFNAASNSRSQIKAALDNAGKIMSLTKTAPDYL VG
 QQPVEDISSNRIYKILELNGYDPQYAASVFLGWATKKFGKRNTTWLFGPATTGKTNIA
 EALAHTVPFYGCVNWTNENFPFND CVDKMVIWWE EGKMTAKVVESAKAILGGSKVR
 VDQCKSSAQIDPTPVIVTSNTNMCAVIDGNSTTFEHQQPLQDRMFKFELTRRLDHD F
 GKVTKEVKDFFRWAKDHVVEVEHEFYVKKGGAKKR PAPSDADISEPKRVRESVAQ
 PSTSDAEASINYADRYQNKCSRHVGMNLM LFPCRQCERMNQNSNICFTHGQKDCLEC
 FPVSESQPVSVVKKAYQKLCYIHHIMGKVPDACTACDLVNVDLDDCIFEQ

FIGURE 3

atgccgggggttttacgagattgtgattaagggtcccccagcgaccttgacgagcatctgccggcatttctgacagctttgtgaactgggtgg
 ccgagaagggaatgggagtgccgccagattctgacatgcatctgaatctgattgacagggcaccctgaccgtggccgagaagctgca
 gcgcgactttctgacggaatggcgccgtgtgagtaaggccccggaggcccttttctgtgcaatttgagaaggagagagctactcca
 catgcacgtgctctggaaccaccgggggtgaaatccatggtttgggacgtttcctgagtcagattcgcgaaaaactgattcagagaatt
 taccgcgggacgagccgactttgccaaactggttcgcggtcacaaaagaccagaaatggcgccggaggcgggaacaagggtggtgga
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 cccaattctgatgcgccggtgatcagatcaaaaactcagccaggatcatggagctggtcgggtggctcgtggacaagggtgattacctc
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 cggatttataaaattttggaactaaacgggtacgatcccaatcgcgctcctcttctgggatgggccacgaaaaagttcggcaaga
 ggaacaccatctgctgtttggccctgcaactaccgggaagaccaacatcgcgaggccatagcccacactgtgcccttctacgggtg
 cgtaaactggaccaatgagaactttcccttcaacgactgtgtcgacaagatggtgatctggtgggaggaggagggaagatgaccgccaag
 gtcgtggagtcggccaagccattctcgagggaagcaagggtgcgcgtgggacagaaatgcaagcttcggccagatagaccggac
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 cggatgttcaaaattgaactcaccgcccgtctggatcatgactttgggaaggtcaccaagcaggaagtcaagacttttccggtgggca
 aaggatcacgtggttgaggtggagcatgaattctacgtcaaaaagggtggagccaagaaaagaccgccccagtgacgcagatata
 agtgagcccaaacgggtgcgcgagtcagttgcgcagccatcgacgtcagacgcggaagcttcgatcaactacgcagacaggtacca
 aaacaaatgttctcgtcagctgggcatgaatctgatgtgtttcctgcagacaatgcgagagaatgaatcagaattcaaatatctgttca
 ctacggacagaaaactgtttagagtgctttccgtgtcagaatctcaacccgtttctgtcgtcaaaaaggcgtatcagaactgtgtctac
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FIGURE 4

MPGFYEIVLKVPSDLDEHLPGISDSFVSWVAEKEWELPPDSMDLNLIEQAPLTVAEK
 LQREFLVEWRRVSKAPEALFFVQFEKGD SYFHLHLVETVGVKSMVVGRYVSQIKEK
 LVTRIYRGVEPQLPNWFAVTKTRNGAGGKNKVDDCYIPNYLLPKTQPELQWAWTN
 MDQYISACLNLAERKRLVAQHLTHVSQTQEONKENQNPNSDAPVIRSKTSARYMELV
 GWLVDRGITSEKQWIQEDQASYISFNAASNSRSQIKAALDNASKIMSLTKTAPDYLVG
 QNPPEDISSNRIYRILEMNGYDPQYAA SVFLGWAQKKFGKRNTIWLFGPATTGKTNIA
 EAIAHAVPFYGCNVNWTNENFPFND CVDKMVIWWEEGKMTAKVVESAKAILGGSKV
 RVDQKCKSSAQIDPTPVIVTSNTNMCAVIDGNSTTFEHQQPLQDRMFKFELTKRLEHD
 FGKVTKEV KDFFRWASDHVTEVTHEFYVRKGGARKRPAPNDADISEPKRACPSVA
 QPSTSDAEAPVDYADRYQNKCSRHVGMNLM LFP CRQCERMNQNV DICFTHGVMDC
 AECFPVSESQPVSVVRKRTYQKLCPIHHIMGRAPEVACSACELANVDLDDCDMEQ

FIGURE 5

atgccgggggttctacgagatcgtgctgaagggtgccagcgacctggacgagcacctgccggcatttctgactctttgtgagctgggtg
 gccgagaagggaatgggagctgccgccggattctgacatggacttgaatctgattgagcaggcacccctgaccgtggccgaaaagctgc
 aacgcgagttcctggctgagtggtgccgcgtgagtaaggccccggaggccctcttcttctccagttcgagaagggggacagctacttc
 cacctgcacatcctggtggagaccgtgggcgtcaaatccatggtggtggccgctacgtgagccagattaaagagaagctggtgaccc
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 gtggacgactgctacatccccaactctgtccccaagaccagcccgagctccagtgggcggtgactaacatggaccagtatataag
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 ggtggcgctcagatcacgtgaccgaggtgactcacgagttttacgtcagaaagggtggagctagaagaggccccccccaatgacg
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 ggtacaaaaaacaatgttctcgtcacgtgggtatgaatctgatgcttttccctgccggaatgcgagagaatgaatcagaatgtggacatt
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 aactgtgtccgattcatcacatcatggggaggggcggcgagggtggcctgctcggcctgcgaactggccaatgtggacttgatgactgtg
 acatggaacaataa

FIGURE 6

MPGFYEIVLKVPSDLDEHLPGISNSFVNWVAEKEWELPPDSMDPNLIEQAPLTVAEK
 LQREFLVEWRRVSKAPEALFFVQFEKGETYFHLHVLIETIGVKSMVVGRYVSQIKEKL
 VTRIYRGVEPQLPNWFAVTKTRNGAGGGNKVVDDCYIPNYLLPKTQPELQWAWTNM
 DQYLSACLNLAERKRLVAQHLTHVSQTQEQNKENQNPNSDAPVIRSKTSARYMELVG
 WLVDGRGITSEKQWIQEDQASYISFNAASNSRSQIKAALDNASKIMSLTKTAPDYLVGSN
 PPEDITKNRIYQILELNGYDPQYAAASVFLGWAQKKFGKRNTTWLFGPATTGKTNIAEI
 AHAVPFYGCNVNWTNENFPFND CVDKMVTWWEKGMTAKVVESAKAILGGSKVRVD
 QKCKSSAQIEPTPVIVTSNTNMCAVIDGNSTTFEHQQPLQDRMFKFELTRRLDHDGKV
 TKQEVKDFFRWASDHVTDVAHEFYVRKGGAKKRPASNDADVSEPKRQCTSLAQPTTS
 DAEAPADYADRYQNKCSRHVGMNLMFPCKTCERMNQISNVCFTHGQRDCGECFPG
 MSSEQPVS VVKKKTYQKLCPIHHILGRAPEIACSACDLANVDLDDCVSE

FIGURE 7

atgccggggttctacgagattgtcctgaaggtcccagtgacctggacgagcacctgccgggcatttctaactcgtttgtaactgggtgg
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 gcgcgagttcctgggtgagtgccgccgctgagtaaggccccggaggccctctttttgtccagttcggaaaggaggagacctacttcca
 cctgcacgtgctgattgagaccatcggggtcaaatccatggtggtcgccgctacgtgagccagattaagagaagctggtgacctcca
 tctaccgcggggtcgagccgcagcttcgaactggttcgcggtgacaaaacgcgaaatggcggcggggggggaacaagggtggtg
 gacgactgtacatccccaaactacgtctcccaagacccagcccgagctccagtggtggcgtggactaacatggaccagtatttaagcgc
 ctgtttgaatctcgccgagcgtaaacggctggtggcgcagcatctgacgcacgtgtcgacgacgaggagcagaacaaagagaatcag
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 ggaagaggaaacaccatctggtctttggccggccagcaggggtaaaacacatcgcgggaagccatcgccacgccgtgccccttcta
 cggctgcctaaactggaccaatgagaactttcccttcaacgattgcgtcgacaagatggtgatctggtggaggagggaagatgacgg
 ccaaggtcgtggagagcgccaaggccattctggcggaagcaaggtgcgcgtggacaaaagtgaagtcacggccagatcgaa
 cccactcccgtgatcgtcacctccaacaccaatgtgcgccgtgattgacgggaacagcaccaccttcgagcatcagcagccgtgca
 ggaccggatgtttaaattgaacttaccgccggttgaccatgactttgggaaggtcaccacaaaggaagtaaggactttttccggtggg
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 ccaattcatcatctcgggaaggccaccgagattgcctgttcggcctgcgatttggccaatgtggacttggatgactgtgtttctgagca
 ataa

FIGURE 8

MPGFYEIVLKVPSDLDERLPGISNSFVNWVAEKEWDVPPDSMDPNLIEQAPLTVAEK
 LQREFLVEWRRVSKAPEALFFVQFEKGETYFHLHVLITIGVKSMVVGRYVSQIKEKL
 VTRIYRGVEPQLPNWFAVTKTRNGAGGGNKVVDDCYIPNYLLPKTQPELQWAWTNM
 DQYLSACLNLAEKRLVAQHLTHVSQTQEQNKENQNPNSDAPVIRSKTSARYMELVG
 WLVDRGITSEKQWQEDQASYISFNAASNSRSQIKAALDNASKIMSLTKTAPDYLVGSN
 PPEDITKNRIYQILELNGYDPQYAASVFLGWAQKKFGKRNTIWLFGPATTGKTNIAEAI
 AHAVPFYGCVNWTNENFFPNDKMDKMTWEEGKMTAKVVESAKAILGGSKVRVD
 QKCKSSAQIEPTPVIVTSNTNMCAVIDGNSTTFEHQQPLQDRMFELTRRLDHDGKV
 TKQEVKDDFRWASDHVTDVAHEFYVRKGGAKKRPAASNDADVSEPKRECTSLAQPTTS
 DAEAPADYADRYQNKCSRHVGMNLMFLPCKTCERMNQISNVCFTHGQRDCGECFPG
 MSESQPVSVVKKKTYQKLCPIHHILGRAPEIACSACDLANVDLDDCVSEQ

FIGURE 9

atgccggggttctacgagattgtcctgaagggtcccgagtgacctggacgagcgctgccgggcatttctaactcgtttgttaactgggtgg
 ccgagaagggaatgggacgtgccgccggattctgacatggatccgaatctgattgagcagggcaccctgaccgtggccgaaaagcttca
 gcgcgagttcctgttgagtggtgcgccgcgtgagtaaggcccgaggccctctttttgtccagttcgaaaagggggagacctactcca
 cctgcacgtgctgattgagaccatcgggggtcaaatccatggtggtcggcgctacgtgagccagattaaagagaagctggtgaccgca
 tctaccgcgggggtcagccgcagcttccgaactggtcgcgggtgacaaaacgcgaaatggcgccggggggcgggaacaagggtgtg
 gacgactgtacatccccaaactacctgtccccaaagaccagcccgagctccagtgggcgtggactaacatggaccagtatttaagcgc
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 aaccccaattctgacgcgccggtcatcaggtcaaaaacctcagccaggtacatggagctggtcgggtggtggtggtggaccgcgggatca
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 gctggcaaatgcctccaagatcatgagcctgacaaagacggctcggactacctggtgggcagcaaccgccggaggacattacaa
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 ggaaggaacacacatctggtctttggggccggcacgaggggtgaaaccaacatcgcggaagccatcgccacgccgtgcccttcta
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 ccaaggctcgtggaagcgcgaagccattctggggcgaagcaagggtgcgctggaccaaaagtcaagtcacggccagatcgaa
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 ggaccggatgtttgaattgaacttaccgccggtttggaccatgactttgggaaggtcaccacaaggaagtaaggacttttccggtggg
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 ccaattcatcatatctgggaagggcacccgagattgcctgttcggcctgcgattggccaatgtggacttgatgactgtgtttctgagca
 ataa

FIGURE 10

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MPGFYEIVIKVPSDLDEHLPGISDSFVSWVAEKEWELPPDSMDLNLIEQAPLTVAEKL
QRDFLVQWRRVSKAPEALFFVQFEKGESYFHLHLVETTGVKSMVLGRFLSQIRDKLV
QTIYRGIEPTLPNWFAVTKTRNGAGGGNKVVDECYIPNYLLPKTQPELQWAWTNMEE
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VDRGITSEKQWIQEDQASYISFNAASNSRSQIKAALDNAGKIMALTKSAPDYL VGPAPP
ADIKTNRIYRILELNGYEPAYAGSVFLGWAQKRFGRNTTWLFGPATTGKTNIAEIAH
AVPFYGCNVNWTNENFPFND CVDKMVIWWEKGMTAKVVESAKAILGGSKVRVDQK
CKSSAQIDPTPVIVTSNTNMCAVIDGNSTTFEHQQPLQDRMFKFELTRRLEHDFGKVTK
QEVKEFFRWAQDHVTEVAHEFYVRKGGANKRPAPDDADKSEPKRACPSVADPSTSDA
EGAPVDFADRYQNKCSRHAGMLQMLFPCKTCERMNQNFNICFTHGTRDCSECFPGVS
ESQPVVRKRTYRKLCIAIHLLGRAPEIACSACDLVNVDLDDCVSEQ

FIGURE 11

atgccgggcttctacgagatcgtgatcaaggtgccgagcgacctggacgagcacctgccgggcatttctgactcgtttgtgagctgggtg
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ttgcttcacgcacgggacgagagactgttcagagtgcttccccggcggtgcagaatctcaaccggtcgtcagaaaggagcgtatcgga
aactctgtgccattcatctgtggtggcggggctcccagattgcttgcgcctgcgatctgtgaacgtggacctggaatgactgtttt
ctgagcaataa

FIGURE 12

MPGFYEIVIKVPSDLDEHLPGISDSFVNWVAEKEWELPPDSMDLNLIEQAPLTVAEKL
 QRDFLVQWRRVSKAPEALFFVQFEKGESYFHLHLVETTGVKSMVLGRFLSQIRDKLV
 QTTYRGIEPTLPNWFAVTKTRNGAGGKNKVDECYIPNYLLPKTQPELQAWTNMEE
 YISACLNLAERKRLVAHDLTHVSQTQEONKENLNPNSDAPVRSKTSARYMELVGWL
 VDRGITSEKQWIQEDQASYISFNAASNSRSQIKAALDNAGKIMALTSAAPDYLVGPAPP
 ADIKTNRIYRIELNGYDPAYAGSVFLGWAQKRFGKRNTIWLFGPATTGKTNIAEALAH
 AVPFYGCNVNWTNENFPFNDKMDVWVWEEGKMTAKVVESAKAILGGSKVRVDQK
 CKSSAQIDPTPVIVTSNTNMCAVIDGNSTTFEHQQPLQDRMFKFELTRRLEHDFGKVTK
 QEVKEFFRWAQDHVTEVAHEFYVRKGGANKRPAPDDADKSEPKRACPSVADPSTSDA
 EGAPVDFADRYQNKCSRHAGMLQMLFPCKTCERMNQNFNICFTHGTRDCSECFPGVS
 ESQPVVRKRTRYRKLCAIHLLGRAPEIACSACDLVNVDLDDCVSEQ

FIGURE 13

atgccggggttttacgagattgtgattaaaggtcccccagcgacctgacgagcatctgccggcatttctgacagctttgtgaactgggtggc
 cgagaaggaaatgggaggtgccgccagattctgacatggatctgaatctgattgagcaggcaccctgaccgtggccgagaagctgcag
 cgcgacttctggtccagtgccgccgctgagtaaggccccggaggccctctctttgttcagttcgagaaggcgagctctacttccac
 ctccatattctggtggagaccacgggggtcaaatccatggtgctggggcgttctctgagtcagattaggacaaagctggtgcagaccatc
 taccgcccgatcgagccgacctgccccaaactggttcgcgggtgacaaagacgcgtaatggcgccggaggggggaacaaaggtggtgga
 cgagtgtacatccccaaactacctctgccccaaactcagcccagctgagtgaggcgtgactaacatggaggagtataaagcgcgt
 gtttaaacctggccgagcgcaaacggctcgtggcgacgacctgaccacgtcagccagaccaggagcagaacaaaggagaatctga
 accccaattctgacggcgctgtcatccgggtcaaaaacctccgcacgctacatggagctggctgggtggctgggtggaccggggcatcacc
 tccgagaagcagtggtatccaggaggaccaggcctctgacatctccttcaacggcgcctcctaactcgcggtccagatcaaggccgctt
 ggacaatgccggcaagatcatggcgctgacaaatccgcgcccactacctggtaggccccgctccgcccgccgacattaaaaccaa
 ccgcatttaccgcatcctggagctgaacggctacgacctgacctgacctgcttcttctggctgggcccagaaaagggttcggaaa
 acgcaacaccatctggctgttggggccggccaccaggcgcaagaccaacatcgcggaagccatcgccacgccgtgcccttctacggc
 tgcgtcaactggaccaatgagaactttcccttcaacgattgcgtcgacaagatgggtgatctggtgggaggaggcgaagatgacggccaa
 ggtcgtggagtcggccaaggccatttctggcgccagcaaggtgcgctggaccaaaagtgcaagtcgctccgccagatcgatccac
 ccccgatgacgtcacctccaacaccaacatgtgcgctgattgacgggaacagcaccaccttcgagcaccagcagccgttcaggac
 cggatgttcaaatgaaactaccccgccgctctggagcatgacttggcaagggtgacaaagcagggaagtcaaaagatttctccgctggcg
 caggatcacgtgaccgaggtggcgcatgattctacgtcagaaagggtggagccaacaagagaccgccccgatgacgggataaa
 agcgagcccaagcgggcctgccccctagtcgcgatccatcagcgtcagacgggaaggagctccgggtgacttggcgacaggtac
 caaaacaaatgttctgtcacgcgggcatgcttcagatgctgttccctgcaaaacatgcgagagaatgaatcagaatttcaacattgctt
 acgcacgggaccagagactgttcagaatgttccccggcggtgcagaatcacaacgggtcgtcagaaaggagacgtatcggaactctgt
 gccattcatcatctgctggggcgggctcccagattgcttgcctgcgatctggtcaacgtggatctggatgactgttcttgagca
 ataa

FIGURE 14

MPGFYEIVKVPSDLDEHLPGISDSFVNWVAEKEWELPPDSMDLNLIEQAPLTVAEKL
 QRDFLTEWRRVSKAPEALFFVQFEKGESYFHMHLVETTGVKSMVLGRFLSQIREKLI
 QRIYRGIEPTLPNWFAVTKTRNGAGGGNKVVDECYIPNYLLPKTQPELQWAWTNMEQ
 YLSACLNLTERRKRLVAQHLTHVSQTQEQNKENQNPNSDAPVIRSKTSARYMELVGWL
 VDKGITSEKQWIQEDQASYISFNAASNSRSQIKAALDNAGKIMSLTKTAPDYLVGQQP
 VEDISSNRIYKILELNGYDPOYAASVFLGWATKFKGKRNTIWLFGPATTGKTINIAEIA
 HTVPFYGCVNWTNENFPFNDKMDKVIWWEWGKMTAKVVESAKAILGGSKVRVDQ
 KCKSSAQIDPTPVIVTSNTNMCAVIDGNSTTFEHQQPLQDRMFKFELTRRLDHDGKVT
 KQEVKDFFRWAKDHVVEHEFYVKKGGAKKRPAPSDADISEPKRVRESVAQPSTSD
 AEASINYADRLARGHSL

FIGURE 15

atgccgggggttttacgagattgtgattaagggtcccccagcgacctgacgagcatctgcccgccatttctgacagctttgtgaactgggtggc
 cgagaagggaatgggagttgccgccagattctgacatgcatctgaatctgattgagcaggcaccctgaccgtggccgagaagctgcag
 cgcgactttctgacggaatggcgccgtgtgagtaaggccccggaggccctttcttctgcaatttgagaaggagagagctacttccaca
 tgcacgtgctcgtggaaaccaccgggggtgaaatccatggttttgggacgttctctgagtcagattcgcgaaaaactgattcagagaatttac
 cgcggggtcgcagccgactttgccaactggttcgcggtcacaaagaccagaaatggcgccggaggcgggaacaagggtggtggatga
 gtgtcatatccccaattactgtctcccaaaaccagcctgagctccagtggtggcgtggactaatatggaacagtatttaagcgcctgttga
 atctcacggagcgtaaacgggtgggtggcgagcatctgacgcacgtgtcgcagacgcaggagcagaacaaagagaatcagaatcca
 attctgatgcggcgggtgatcagatcaaaaacttcagccaggtacatggagctgtcgggtggctcgtggacaaggggattacctcggag
 aagcagtggtatccaggaggaccaggcctcatatctcttcaatgcggcctccaactcgcgggtcccaaatcaaggctgccttggacaat
 gcgggaaagattatgagcctgactaaaaccgccccgactacctggtgggccagcagcccgtggaggacatttcagcaatcggattta
 taaaattttggaactaaacgggtacgatcccaaatatgcggcttctcttcttgggatgggccacgaaaaagttcggcaagagggaacacc
 atctggctgtttgggcctgcaactaccgggaagaccaacatcgcggaggccatagcccacactgtgcccttctacgggtgcgtaactg
 gaccaatgagaactttcccttcaacgactgtgtcgacaagatgggtgatctggtgggaggaggagggaagatgaccgccaaggctcgtggagt
 cggccaagccattctcgggaggaagcaagggtgcggtggaccagaaatgcaagtctcggccagatagaccgactcccgtgatcgt
 cactccaacaccaacatgtgcgcgtgattgacgggaactcaacgacctcgaacaccagcagccgttgaagaccggatgttcaaat
 tgaactcaccgccgtctggatcatgacttgggaagggtcaccagcaggaaagtcaagacttttccggtgggcaaggatcacgtggt
 gaggtggagcatgaattctacgtcaaaaagggtggagccaagaaaaagaccgccccagtgacgcagatataagtgaaccaaacgg
 gtgcgcgagtcagttgcgcagccatcgacgtcagacgcggaagcttcgatcaactacgcagacagcttttgggggaacctcggacga
 gc

FIGURE 16

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MPGFYEIVIKVPSDLGDHLPGISDSFVNWVAEKEWELPPDSMDLNLIEQAPLTVAEKL
QRDFLTEWRRVSKAPEALFFVQFEKGESYFHMHVLEVTTGVKSMVLGRFLSQIREKLI
QRIYRGIEPTLPNWFAVTKTRNGAGGGNKVVDECYIPNYLLPKTQPELQWAWTNMEQ
YLSACLNLERKRLVAQHLTHVSQTQEQNKENQNPNSDAPVIRSKTSARYMELVGWL
VDKGITSEKQWQEDQASYISFNAASNSRSQIKAALDNAGKIMSLTKTAPDYLVGQQP
VEDISSNRIYKILELNGYDPQYAASVFLGWATKKFGKRNTIWLFGPATTGKTNIAEALA
HTVPPFYGCNVNWTNENFFPNDKMDVWEEGKMTAKVVESAAILGGSKVRVDQ
KCKSSAQIDPTPVIVTSNTNMCAVIDGNSTTFEHQQPLQDRMFKFELTRRLDHDGFKVT
KQEVKDFFRWAKDHFVVEVEHEFYVKKGGAKKRPAPSDADISEPKRVRESVAQPSTSD
AEASINYADRLARGHSL

FIGURE 17

atgccggggttttacgagattgtgattaagggtcccagcgaccttgacgagcatctgccggcatttctgacagctttgtgaactgggtggc
cgagaagggaatgggaggtgccgcagattctgacatggatctgaatctgattgagcaggcacccttgaccgtggccgagaagctgcag
cgcgactttctgacggaatggcgccgtgtgagtaaggccccggaggccctttcttctgcaatttgagaaggagagagctactccaca
tgcacgtgctcgtggaaaccacgggggtgaaatccatggtttgggacgttctgagtcagattcgcgaaaaactgattcagagaatttac
cgcgggatcgagccgactttgccaactggttcgcggtcacaaagaccagaaatggcgccggaggcgggaacaagggtggtgatga
gtgctacatcccaattacttgctcccaaaaccagcctgagctccagtggtggcgtggactaatatggaacagtatttaagcgctgttga
atctcacggagcgtaaacggttgggtggcgagcatctgacgcacgtgtgcagacgcaggagcagaacaaagagaatcagaatccca
attctgatgcgccggtgatcagatcaaaaacttcagccaggtacatggagctggtcgggtggctcgtggacaagggtgattacctggag
aagcagtggtatccaggaggaccaggcctcatacatctcctcaatcgggcctcaactcgcggtcccaaatcaaggctgcttggacaat
gcgggaaagattatgacctgactaaaaaccgccccgactacctggtgggcccagcagcccgtggaggacatttcagcaatcgattta
taaaattttggaactaaacgggtacgatcccaaatatcggttccgtcttctgggatggccacgaaaaagttcggcaagagggaacacc
atctggctgtttggcctgcaactaccgggaagaccaacatcgcgaggccatagcccacactgtgccccttctacgggtgcgtaaactg
gaccaatgagaactttcccttaacgactgtgtgcacaagatggtgatctggtgggaggagggaagatgaccgccaaggctgtggagt
cggccaaagccattctcgagggaagcaagggtgcgctggaccagaaatgcaagtcctcgcccagatagaccgactcccgtgatcgt
cacctccaacaccaacatgtgcgccgtgattgacgggaactcaacgaccttcgaacaccagcagccgtgcaagaccggatgttcaatt
tgaactacccgccgtctggtatcatgactttgggaagggtcaccaagcaggaagtcaaaagacttttccggtgggcaaaggatcacgtggt
gagggtggagcatgaattctacgtcaaaaagggtggagccaaagaaagaccgccccagtgacgcagataaagtgagcccaaacgg
gtgcgcgagtcagttgcgagccatcgacgtcagacgcggaagcttgatcaactacgcagacagattggctcaggacactctctctg
a

FIGURE 18

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MELVGWLVDKGITSEKQWIQEDQASYISFNAASNSRSQIKAALDNAGKIMSLTKTAPD
YLVGQQPVEDISSNRIYKILELNGYDPQYAAASVFLGWATKKFGKRNTTWLFGPATTGK
TNIAEAIHAHTVPFYGCVNWTNENFPFNDVCVKMVIWWEEGKMTAKVVESAKAILGGS
KVRVDQKCKSSAQIDPTPVIVTSNTNMCAVIDGNSTTFEHQQPLQDRMFKFELTRRLD
HDFGKVTKEVVDFFRWAKDHVVEVEHEFYVKKGGAKKRPAPSDADISEPKRVRESV
AQPSTSDAEASINYADRYQNKCSRHVGMNMLFPCRQCERMNQNSNICFTHGQKDCL
ECFPVSESQPVSVVKKAYQKLCYIHHIMGKVPDACTACDLVNVDLDDCIFEQ

FIGURE 19

atggagctggctgggtggctcgtggacaaggggattacctcggagaagcagtgatccaggaggaccaggcctcatcatctcctcaa
tgcggcctccaactcgcggtcccaaatcaaggctgccttggacaatcggggaaagtattagcctgactaaaaccgccccgactacc
tggtgggccagcagcccgtggaggacatttcagcaatcggattataaaatttggaaactaaacgggtacgatcccaatatcggt¹t
ccgtcttctgggatgggccacgaaaagttcggcaagaggaacaccatctggctgttggcctgcaactaccgggaagaccaacatc
gcggaggccatagcccacactgtgcccttctacgggtgcgtaactggaccaatgagaactttccctcaacgactgtgtgcacaagatg
gtgatctgggtggaggaggagggaagatgaccgccaaggctcgtggagtcggccaaagccattctcggaggaaagcaaggcgcggtgga
ccagaaatgcaagtctcggcccagatagaccgactcccgtgatcgtcacctccaacaccaacatgtgcgccgtgattgacgggaact
caacgaccttcgaacaccagcagccgttgaagaccggatgttcaaattgaactacccgccgtctggatcatgactttgggaaggta
ccaagcaggaagtcaagacttttccgggtgggcaaggatcacgtgttgagggtgagcatgaattctacgtcaaaaagggtggagcc
aagaaaagaccgccccagtgacgcagatataagttagccaaacgggtgcgcgagtcagttgcgcagccatcgacgtcagacgc
ggaagcttcgatcaactacgcagacaggtacaaaacaaatgttctgtcacgtggcatgaatctgatgctgttccctgcagacaatgc
gagagaatgaatcagaattcaaatactgtcttcaactcacggacagaaagactgtttagagtgttcccggtgcagaatcacaaccgtttct
gtcgtcaaaaaggcgtatcagaaactgtgtcatcattcatatcatgggaaagggtccagacgcttgactgcctgcgatctggtaatgt
ggatttggatgactgcattttgaacaataa

FIGURE 20

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MATFYEIVVRVPFDVEEHLPGISDSFVDWVTGQIWELPPESDLNLTVEQPQLTVADRI
RRVFLYEWNKFSKQESKFFVQFEKGSEYFHLHTLVETSGISSMVLGRYVSQIRAQLVK
VVFQGIEPQINDWVAITKVKKGGANKVVDSDGYTPAYLLPKVQPELQWAWTNLDEYKL
AALNLEERKRLVAQFLAESSQRSQEAASQREFSADPVIKSKTSQKYMALVNWLVHGI
TSEKQWIQENQESYLSFNSTGNSRSQIKAALDNATKIMSLTKSAVDYLVGSSVPEDISK
NRIWQIFEMNGYDPAYAGSILYGWCQRSFNKRNTVWLYGPATTGKTNIAEIAHTVPF
YGCNVNWTNENFFNDCVDKMLIWWEWGKMTNKVVESAKAILGGSKVRVDQKCKSS
VQIDSTPVIVTSNTNMCVVVDGNSTTFEHQQPLEDRMFKFELTKRLPPDFGKITKQEVK
DFFAWAKVNQVPVTHEFKVPRELAGTKGAEKSLKRPLGDVTNTSYKSLEKRARLSFV
PETPRSSDVTVDPAPLRPLNWNRSRYDCKCDYHAQFDNISNKCDECEYLNRGKNGCICH
NVTHCQICHGIPPWEKENLSDFGDFDDANKEQ

FIGURE 21

atggctaccttctatgaagtcattgttcgcgtccatttgacgtggaggaacatctgcctggaatttctgacagctttgtggactgggtaactg
gtcaaatgggagctgctccagagtcagatttaaattgactctggttgaaacgcctcagttgacgggtgctgatagaattcgccgctgt
tcctgtacgagtggaacaaattttcaagcaggagtccaaattcttctgagttgaaaaggatctgaatatttcatctgcacacgcttgtg
gagacctccggcatctcttccatggctcctggccgctacgtgagtcagattcgcgccagctgggtgaaagtgtcttcagggaattgaac
cccagatcaacgactgggtcgccatcaccaaggtaaagaaggcgaggccaataagggtgggtgattctgggtatattcccgctacctg
ctgccgaagggtccaaccggagcttcagtgggcggtggacaaacctggacgagtataattggccgccctgaatctggaggagcgcaaac
ggctcgtcgcgagtttctggcagaatcctcgcagcgtcgcaggaggcggttcgcagcgtgagttctcggctgacctgggtcatcaa
agcaagacttccagaaatacatggcgctcgtcaactggctcgtggagcacggcatcacttccgagaagcagtgatccaggaaaatca
ggagagctacctctccttcaactccaccggcaactctcggagccagatcaaggccgcgtcgcacaacgcgaccaaattatgagctga
caaaaagcgcgggtgactacctcgtggggaactcgcgtcccgaggacatttcaaaaaacagaatctggcaattttttagatgaatggct
acgaccggcctacgcgggatccatcctctacggctggtgtcagcgtccttcaacaagagggaacaccgctggtgctctacggaccggc
acgaccggcaagaccaacatcgcggaggccatcgccacactgtgcccttttacggctgcgtgaactggaccaatgaaaactttccctt
aatgactgtgtggacaaaatgctcatttgggtggaggagggaagatgaccaacaagggtggtgaatccgccaggccatcctggggg
gctcaaaagggtcgggtcgtatcagaatgtzaatcctctgttcaaatgattctacccctgtcattgtaaactccaatacaaacatgtgtgtgt
ggtggatgggaattccacgaccttgaacaccagcagccgctggaggaccgcatgttcaaatgaaactgactaagcggctcccgccag
attttggcaagattactaagcagggaagtaaggactttttgcttgggcaaggtaatcaggtgcgggtgactcacgagtttaagtccca
gggaattggcgggaactaaaggggcgagaaatctctaaaacgccactgggtgacgtcaccatactagctataaaagtctggagaa
gcgggcccaggctctcatttggccgagacgctcgcagttcagacgtgactgtgatcccgtcctctgcgaccgctcaattggaattcaa
ggatgattgcaaatgtgactatcatgctcaattgacaacatttctaacaatgtgatgaatgtgaatattgaaatcggggcaaaaatggatgt
atctgtcacaatgtaactcactgtcaatttgcattgggattccccctgggaaaaaggaaaactgtcagattttggggattttgacgatcca
ataaagaacagtaa

FIGURE 22

MELVGWLVDKGITSEKQWIQEDQASYISFNAASNSRSQIKAALDNAGKIMSLTKTAPD
 YLVGQQPVEDISSNRIYKILELNGYDPQYAASVFLGWATKKFGKRNTIWLFGPATTGK
 TNIAEAIAHTVPFYGCVNWTNENFPFNDVCVDMVIWWEKGMTAKVVESAKAILGGS
 KVRVDQKCKSSAQIDPTPVIVTSNTNMCAVIDGNSTTFEHQQPLQDRMFKFELTRRLD
 HDFGKVTKEVVKDFFRWAKDHVVEVEHEFYVKKGGAKKRPAPSDADISEPKRVRESV
 AQPSTSDAEASINYADRLARGHSL

FIGURE 23

atggagctggctgggtggctcgtggacaaggggattacctcggagaagcagtggtatccaggaggaccaggcctcatatctccttcaa
 tgcggcctccaactcgcggtcccaaatcaaggctgcttgacaatgcgggaaagattatgacctgactaaaaccgccccgactacc
 tgggtggccagcagcccgtggaggacatttcagcaatcggattataaaatttggaaactaaacgggtacgatccccaatatcggcttc
 cgtctttctgggatgggcccacgaaaaagttcggcaagagggaacaccatctggctgtttggcctgcaactaccgggaagaccaaatcg
 cggaggccatagcccacactgtgcccttctacgggtgcgtaactggaccaatgagaactttcccttcaacgactgtgtcgacaagatggt
 gatctgtggaggaggagggaagatgaccgccaaggctcgtggagtcggccaagccattctcggagggaagcaagggtgcggtggacc
 agaaatgcaagtcctcggcccagatagaccgactccggtgatcgtcacctccaaccaacatgtgcgccgtgattgacgggaactca
 acgaccttcgaacaccagcagccgttgcaagaccggatgttcaaatgtgaactcaccgccgtctggatcatgactttgggaaggtcacc
 aagcagggaagtcaaaagacttttccggtgggcaaggatcacgtggttgagggtggagcatgaattctacgtcaaaaagggtggagccaa
 gaaaagacccgccccagtgacgcagatataagtgagcccaaacgggtgcgcgagtcagttgcgcagccatcgacgtcagacgcgg
 aagcttcgatcaactacgcagacagcttttgggggcaacctcggacgagc

FIGURE 24

MAFSRPLQISSDKFYEVIRLPSDIDQDVPGLSLNFVEWLSTGVWEPTGIWNMEHVNL
 MVTLADKIKNFIQRWNQFNQDETDFFQLEEGSEYIHLHCCIAQGNVRSFVLGRYMSQ
 IKDSILRDVYEGKQVKIPDWFSITKTKRGGQNKTVTAA YILHYLIPKKQPELQWAFN
 MPLFTAAALCLQKRQELLDAFQESEMNAVVEDQASTAAPLISNRAAKNYSNLVDWL
 IEMGITSEKQWL TENKESYRSFQATSSNNRQVKAALENARAEMLLTKTATDYLIGKDP
 VLDITKNRIYQILKLNNYNPQYVGSVLCGWVKREFNKRNAIWLYGPATTGKTNIAEAI
 AHAVPFYGCNVNWTNENFPNDVCVKMLIWWEEGKMTNKVVESAKAILGGS AVRVD
 QKCKGSVCIEPTPVIITSNTDMCMIVDGNSTTMEHRIPLEERMFIQVLSHKLEGNF GKIS
 KKEVKEFFKWANDNLVPVVSEFKVPTNEQTKLTEP VPERANEPSEPPKIWAPPTREELE
 EILRASPELFASVAPLPSSPDTS PKRKKTRGEYQVRCAMHSLDNSMNVFECLE CERANF
 PEFQSLGENFCNQHGWDCAFCNELKDDMNEIEHVFAIDDMENEQ

FIGURE 25

atggcatttttaggcctcttcagatttcttcgacaaattctatgaagtatcatcaggctaccctcggatattgatcaagatgtgcctggttgt
 ctcttaactttgtagaatggctttctacgggggtctgggagcccaccgggaatatggagcatgtgaatctccccatggttactctgtg
 cagacaaaatcaagaacattttctacagagatggaaacaaatcaatcaggacgaaacggatttcttcttcaattggagaaggcagtgga
 gtacatccatctgcattgtctgtattgccaggggaatgtccgatctttgtctggggagatacatgtctcaaataaagactcaattctgaga
 gatgtgtatgaagggaacagggtaaaaatccccgattggttttctataactaaaacaaacggggagggcaaaaataagaccgtgactgtc
 gcttatattctgcattacctgattcttaaaaaacaaccgggaattacaatgggcttttaccatgatgcccttttactgctgctgctttatgcctcc
 aaaagaggcaagagttactggatgcttttcaggaaagtgaatgaatgctgtagtgcaggaggaatcaagcttcaactgcagctcccccttat
 ttccaacagagcagcaagaactatagcaatctggttgattggctcattgagatgggtatcacctctgaaaaacagtgggtaactgaaaata
 aagagagctaccggagctttcaggctacatcttcaacaacagacaaagtaaaagcagcacttgaatgcccagcagaaatgctacta
 acaaaaaactgccacagactatttgattgaaaagaccagttctggacattactaaaaatcgatctatcaaatctgaagtgaataactata
 accctcaatatgtaggagcgtcctatgcggatgggtgaaaagagaattcaacaaaagaatgccatggctctacggacctgcgacc
 accggaaaagaccaacatagccgaggctattgccatgctgtacccttctatggctgtgtaactggactaatgagaacttccatttaagac
 tgcgttgataaaatgcttatgtgtgggaggaggaaaatgaccaataaagtagtggaatccgcaaaagcgatactgggggggtctgct
 gtacgagttgatcaaaagtgtgaggggtctgtttgtatgaacctctcctgtataatcaccagtaatactgatatgtcatgattgtggtg
 aaattctactacaatggaacacagaattcctttggaggaaaagatgtccagattgttctttccataagctggaaggaaattttgaaaaattt
 caaaaaaggaggtaaaagattttcaaatggccaatgataatctgttccagtagtttctgagttcaaaagctccctacgaatgaacaaacca
 aacttactgagcccgcttctgaacgagcgaatgagccttccgagcctcctaagatatgggtccacctactaggaggagctagaggag
 atattaagagcagccctgagctctttgtctcagttgctcctctgcttccagtcggacacatctcctaagagaaagaaaacccgtgggga
 gtatcagggtacgtgtgtatgcacagtttagataactctatgaatgttttgatgcctggagtgtaagagctaattttcctgaattcaga
 gtctgggtgaaaacttttgaatcaacatgggtggtatgattgtgcattctgtaatgaactgaaagatgacatgaatgaattgaacatgtttt
 gctattgatgatggagaatgaacaataa

FIGURE 26

MALSRPLQISSDKFYEVIRLSSDIDQDVPGLSLNFVEWLSTGVWEPTGIWNMEHVNLP
 MVTLAEKIKNIFIQRWNQFNQDETDFFFQLEEGSEYIHLHCCIAQGNVRSFVLGRYMSQ
 IKDSIIRDVYEGKQIKIPDWFATKTKRGGQNKTVTAAYILHYLIPKKQPELQWAFNM
 PLFTAAALCLQKRQELLDLAFQESDLAAPLPDPQASTVAPLISNRAAKNYSNLVDWLE
 MGITSEKQWL TENRESYRSFQATSSNNRQVKAALENARAEMLLTKTATDYLGKDPV
 LDITKNRVYQILKMNNYNPQYIGSILCGWVKREFNKRNAIWLYGPATTGKTNIAEIA
 HAVPFYGCVNWTNENFPFND CVDKMLIWWEEGKMTNKVVESAKAILGGS AVRVDQ
 KCKGSVCIEPTPVIITSNTDMCMIVDGNSTTMEHRPLEERMFQIVLSHKLEPSFGKISKK
 EVREFFKWANDNLVPVVSEFKVRTNEQTNLPEPVPERANEPEEPPKIWAPPTREELEEL
 LRASPELFSSVAPIPVTPQNSPEPKRSRNNYQVRCALHTYDNSMDVFECMECEKANFPE
 FQPLGENYCDEHGWDCAICKELKNELAEIEHVFELDDAENEQ

FIGURE 27

atggcactttctaggcctcttcagatttctctgataaattctatgaagttattattagattatcatcggaattgatcaagatgtccccggctgtc
 tcttaacttttagaattggctttctaccggagtttgggagccacgggcatctggaacatggagcatgtgaatctaccgatggtagcttg
 cagaagaatcaagaacatttccatacaaatgggaatcagttcaaccaggacgaaacggacttcttctcaactggaagaaggcagtg
 gtacattcatcttctcattgtgtattgccccaggcgaatgtacggcttttctcgggagatatgtctcagataaaagactctatcataagag
 atgtatatgaagggaacaaatcaagatccccgattgggttcttactaaaaccaaggagggaaggacagaataagaccgtgactgcag
 catacatactgcattaccttatttctaaaaagcaacctgaactgcaatgggcctttaccaatgtcctttattcactgctgctgtcttctgtc
 aaaaaggcgaagaattgctggatgcatttcaagaagtgttggctggcctttacctgatcctcaagcatcaactgtggcaccgcttattt
 ccaacagagcggcaaaagaactatagcaacctgttgattggctcattgaaatggggataacatctgagaagcaatggctcactgagaacc
 gagagagctacagaagctttcaagcaacttctcaataatagacaagtgaagctgcactggaaaatgccgtgctgaaatgttattgac
 aaagactgcaactgattacctgataggaaaagaccctgtcctggatataactaagaatagggtctatcaaatctgaaaatgaataactaca
 accctcaatacatagggaagtatcctgtcggctgggtgaagagagagttcaacaaaagaaacgccataggctctacggacctgcccacc
 accgggaagaccaacattgcagaagctattgccatgctgtacccttctatggctgtgttaactggactaatgagaacttctttaaattgatt
 gtgttgataaaatgctgatttgggtgggaggagggaataatgactaataagggttgaatctgcaaaagcaatttgggagggtctgtctgc
 cgggtagaccagaaatgtaaggatctgtttgtattgaacctactcctgttaattactagtaatactgatattgtgtattgttgatggcaac
 tctactacaatggacatagaaaccattagaggagcgtatgttcaaatgtcctacataaattggagccttctttgaaaaatttctaa
 aaagaagtgcagagaattttcaaatggccaatgacaatctagtctgtgtgtgagttcaagtcgaactaatgaacaaaccaacttg
 ccagagcccgttctgaacgagcgaacgagccggaggagcctcctaagatctgggctcctcctactagggaaggagtagaagagctttt
 aagagccagccagaattgttctcatcagtcgtccaatctgtgactcctcagaactccccctgagcctaagagaagcaggagaacaattac
 caggtacgctgcctttgcatacttatgacaattctatggatgtattgaatgtatggaatgtgagaaagcaacttctgaattcaacctct
 gggagaaaattattgtgatgaacatgggtgggtatgattgtgtatatgtaagagttgaaaaatgaactgcagaaattgagcatgtgttg
 gcttgatgatgctgaaaatgaacaataa

FIGURE 28

MAFSRPLQISSDKFYEVITRLPSDIDQDVPGLSLNFVEWLSTGVWEPTGIWNMEHVNLP
 MVTLADKIKNIFIQRWNQFNQDETDFFFQLEEGSEYIHLHAVCPGECRSFVLGRYMSQI
 KDSILRDVYEGKQVKIPDWFSTTKTKRGGQNKTVTAAYILHYLIPKKQPELQWAFSTM
 PLFTAAALCLQKRQELLDAFQSEMNNAVVEDQASTAAPLISNRAAKNYSNLVDWLIE
 MGITSEKQWLTKENKESYRSFQATSSNNRQVKAALENARAEMLLTKTATDYLGKDPV
 LDITKNRIYQILKLNINYPQYVGSVLCGWVKREFNKRNAIWLYGPATTGKTNIAEALA
 HAVPFYGCNVNWTNENFPFNDVCKMLIWWEKGKMTNKVVESAKAILGGSVVRVDQ
 KCKGSVCIEPTPVIITSNTDMCMIVDGNSTTMEHRIPLEERMFOIVLSHKLEGNFGKISK
 KEVKEFFKWANDNLVPVVSEFKVPTNEQTKLTPVPERANEPSEPPKIWAPPTREELEE
 ILRASPELFASVAPLPSSPDTSPKRKKTRGEYQVRCAMHSLDNSMNVFECLECIERANFP
 EFQSLGENFCNQHGWDCAFCNELKDDMNEIEHVFAIDDMENEQ

FIGURE 29

atggcattttctaggcctcttcagatttctctgacaaattctatgaagtatcatcaggctaccctcggatattgatcaagatgtgcctggtttg
 ctcttaactttgtagaatggcctttctacgggggtctgggagcccaccggaatatggaatatggagcatgtgaatccccatggttactctgg
 cagacaaaaatcaagaacattttatccagagatggaaccaattcaatcaggacgaaacggatttcttcttcaattggaagaaggcagtgga
 gtacatccatctgcatgtgtatgccagggggaatgtcgtatctttgtctggggagatacatgtctcaaatgaagactcaattctgagagat
 gtgtatgaagggaacaggttaaaaaatcccggttgggttttataactaaacaaacggggaggggcaaaataagaccgtgactgtgtgt
 tatattctgcattacctgatttctaaaaaacaaccgggaattacaatgggcttttaccatgccccttttactgctgtgtttatgcctcaa
 aagaggcaagagtactggatgtctttcaggaaagtggatgaatgtgtgtgcaggaggatcaagcttcaactgcagctccccttatttc
 caacagagcagcaaaagaactatagcaatctggttgattggctcattgagatgggtatcacctctgaaaaacagtggctaactgaaaataaa
 gagagctaccggagctttcaggctacatcttcaacaacagacaagtaaaagcagcacttgaaaatgccgagcagaaatgctactaac
 aaaaactgccacagactatttgattggaaaagaccagttctggacattactaaaaatcggatctatcaaatctgaagtgaataactataac
 cctcaatatgtaggggagcgtctatgcggatgggtgaaaagagaattcaacaaaagaatgccatattggctctacggacctgcgaccac
 cggaagaccaacatagccgaggctattgccatgtgtacccctctatggctgtgttaactggactaatgagaacttccatttaactgactg
 cgttgataaaatgcttataatgggtgggaggaggaaaatgaccaataaagtagtggaatccgaaaagcgatactgggggggtctgtgt
 acgagttgatcaaaagtgaagggtctgtttgtatgaacctactcctgtaataattaccagtaatactgatatgtgcatgttggtgga
 atttactacaatggaacacagaattcctttggaggaaagaatgttccagattgttcttccataagctggaaggaaatttggaaaaatttca
 aaaaaggagggtaaaaagatttttcaaatgggccaatgataatctgttccagtagtttctgagttcaaagtccctacgaatgaacaaacaaa
 ctactgagcccgttctgaacgagcgaatgagccttccgagcctcctaagatatgggtccacctactaggaggagctagaggagata
 ttaagagcgagccctgagctcttcttcagttgctcctctgccttccagtcggacacatctcctaagagaaagaaaaccgtggggagt
 atcaggtacgctgtgtatgcacagtttagataactctatgaatgttttgaatgcctggagtgtaagagctaattttctgaatttcagagtc
 tgggtgaaaacttttgaatcaacatgggtggtatgattgtgatttctgtaatgaactgaaagatgacatgaatgaattgaacatgttttgc
 attgatgataggagaatgaacaataa

FIGURE 30

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RPELQWAFITNMPLFTAALCLQKRQELLDAFQESDLAAPLPDPQASTVAPLISNRAAK
NYSNLVDWLIEMGITSEKQWL TENRESYRSFQATSSNNRQVKAALENARAEMLLTKT
ATDYLIGKDPVLDITKNRVYQILKMNNYNPQYIGSILCGWVKREFNKRNAIWLYGPAT
TGKTNIAEAIHA VPFYGCVNWTNENFPFND CVDKMLIWWE EGKMTNKVVESAKAIL
GGS AVRVDQKCKGSVCIEPTPVIITSNTDMCMIVDGNSTTMEHRIPLEERMFOIVLSHK
LEPSFGKISKKEVREFFKWANDNLVPVSELKVRTNEQTNLPEPVPERANEPEEPPKIW
APPTREELEELLRASPEL FSSVAPIPVTPQNSPEPKRSRNNYQVRCALHTYDNSMDVFE
CMECEKANFPEFQPLGENYCDEHGWYDCAICKELKNELAEIEHVFELDDAENEQ

FIGURE 31

cgacctgaactgcagtgggccctttaccaatatgccctttactgctgctgctctttgtctgcaaaagcggcaagaattgctggatgcatttca
agagagtgattggctgcccctttacctgaccccaagcatcaactgtggcaccgcttattccaacagagcggcaagaactatagcaac
cttggtgattggctcattgaaatgggcataacatctgagaagcaatggctcactgagaaccgagagagctacagaagctttcaagcaactt
cttcaataatagacaagtgaagctgcactggagaatggcgtgctgaaatgctattaacaaagactgcaactgattacctgataggaaa
agaccctgtcctggatataactaagaacagggtctatcaaattctgaaatgaataactacaaccctcaatacataggaagtacctgtgctg
gctgggtgaagagagaggttcaacaaaagaaacgccatatggctctacggacctgccaccaccgggaagaccaacattgcagaagctat
tgcccatgctgtacccttctatggctgcgttaactggactaatgagaactttccttttaattgattgtgttgataagatgctgattgggtgggagga
gggaaaaatgactaataagggtgttgatctgcaaaagcaattttgggagggtctgctgtccgggtagaccagaaatgtaaggatctgttt
gtattgaacctactcctgtaattattaccagtaatactgatatgtgtatgattgtgatggcaactctactacaatggaacatagaataccattag
aggagcgcattgttcaaatgtcctatcacataaattggagccttcttggaaaaatatctaaaaggagtcagagaattttcaaatgggc
caacgacaatttagttcctgtgtgtctgagctcaaatgcgaacgaatgaacaaaccaactgccagagcccgttcctgaacgagcgaac
gagccagaggagcctcctaaaaatctgggctcctcctactagggaagggttagaagagcttttaagagccagcccagaattgttctcatca
gttgctccaattcctgtgactcctcagaactccctgagcctaagagaagcaggaacaattaccaggtacgctgtgctttgcatacttatgac
aatctatggatgtctttgaatgtatggaatgtgagaaggcaattttcctgaattcaacctctgggagaaaattatgtgatgaacatgggtg
gtatgattgtctatatgtaaagaattgaaaaatgaactgcagaaattgagcatgtgtttgagcttgatgatgctgaaaatgaacaataa

FIGURE 32

atggctcaagctgtcttctctgtcttgggcagattgcttggccgtgtcattaaagtgccatgtccctcgaagaggtgtctgagcaacacg
agttttggcaatactatgttctctgtaaaatccgctgactggccggccttacaggctactgagctggtcatggttgggaggtgggtcgt
actgtgctgttgctgatgcttgtattgtacctgggtgggcagactagcagacgagttiaagtgcgtactgtgttcttcaactgaaccaggt
gtggaaaatccccatattcatgttggcacaggccaccaggtgtcggcatttaactggcgtcgcatttaactcaggcatgtcatgacatg
gctctggggttttgaacctgactacttgggctgggctaaaaatgtgtgaatatataaaaaagacaaagtctggacgaattttacggtcagac
tggcaatttgaataaacttacctatttgcctaaagtccccgtgtaaaggctgtgtagcctggactaacaagcccgaatttgaccctatagct
ctcagtgccgctgctgcggggacaggctgatgagaggcaacgcactttgtaatacagccgggacccggggccgtcttttggagaccgggca
gaaattcaggacccctccattaaaaagactaaggcatcagatgattttacactctctgtcactggttagctcaagagggaattatacaga
gcctgcctggagacagagaatttagatggctatgtgcgtatgcacaccttactcaggggagggcagcagggtgtgtctgtcttggccat
ggccaaaaacatcatattggatgcatccaaactgtgtttgccacaaaggcagaagtgtgtcacagaactctgttttgaagtaaccgct
gtgtgaggctcttgagaacacagggctatgaccgggtacaatttgctgttgggtttacgggtgtgaccgtataaacgggcacaaaaa
atactatttggttttatgggctgctacttgggcaactaactagcaaatgcgattgcccactcacttccatgttatggctgtgtaaacctg
accaatgaaaacttccccttaatgacgccccgacaaatgtgtattgtttgggacgagggtagagtcacggccaaaattgtggaagtgt
taaaagtgtgttgggaggccaagacatcagagtggaacagaagtgtgaaggggagcttctttaaagggtacccccagtcattataacaagt
aatggggacatgaccgttgtgcgagatggaataaccacaaccttgcacctgccttgaaggaccgcatgtgtccgcttaattttg
atgtgaggctcccaaatgactttgggcttatccccccactgagggttcgcgagtggtgtgagatactgcaaggaaacaggggacgattat
agttccagaccagatgtaccaggtttccacgagatgtgtttctgttctgtcctctcgtccttgcctcagccaggggcaagtacaaaatgcc
cggaagaagagatccttgatctcttaccacaacaaacttctgactcaacctgggctctctatgtagccggccggttgacctgaagaaga
acctgatgtcgcgaatcttggagggtctccagcaccagcagtcagcagcaccacagagtcagtgccgacgaggacgaggacgacga
cacttctctcttggcgaccacagaggaggaggaggagggtcatgggagattacacgcttcttcttctcttcttacttccagtgaact
caggactccccacttccgtcaacaccagcgacaccccccttctcttccagccccgtaccagtgcaccaccacggacccccaacgttctcc
cgacctacgcccgcacacgcgaictggcccggtggcgcccgcttctccgacgtacagaccattgaaaggccgggtgtgcggactcgcac
tactgttggctgtcgtcttgggcccggccgtgtgacgtctacaacactgcggagctgactcgtcgtggagcagggtgtccgagttgtgaag
gggtcaagaccagggtgcgatctctggaagtga

FIGURE 34

MEMFRGVVHVSANFINFVNDNWWCCFYQLEDDWPRLQGWERLIAHLIVKVAGEFA
 VPGGSTLGLQYFLQAEHNHFDEGFHVHVVGPFVTPRNVCNIVETGFNKVLRELTEP
 TYEVSFKPAISKKGKYARDGFDFTNYLMPKLYPNVVYSVTNFSEYEYVCNSLAYRR
 NMHKKALTNTADEGEGTSTNSEWGPEPKKQKTGTVRGEKFVSLVDSLIERGIFTENK
 WKQVDWLKEYACLSGSVAGVHQIKTALTLAISKCNspeylCELLTRPSTINFNIKENRI
 CKIFLQNDYDPLYAGKVFLAWLGKELGKRNTTWLFGPPTTGKTNIAMSLATAVPSYG
 MVNWNENFPFNDVPHKSILWDEGLIKSTVVEAAKAILGGQNCrVDQKNKGSVEVQ
 GTPVLITSNNDMTRVVSNGNTVTLHQALKDRMVEFDLTVRCSNALGLIPAECKQWL
 FWSQHTPCDVFSRWKEVCEFAWKSDRTGICYDFSenedLPGTQTPLLNSPVTSTKSA
 LKKTIAALATAAVGTlQTSLTNNNWESSEDSGSPRSSTPLASPERGEVPPGQQWELNT
 SVNSVNALNWPMYTVDWVWGSKAQRPVCCLEHDTessVHCSLCLSLVLPMLIENSI
 NQPDVIRCSAHAECTNPFVLTCKKCRELSALWSFVKYD

FIGURE 35

atggaaatgtttcggggtgtgtacatgtttctgtaactttattaactttgtaacgataattgggtgtgtgttttacagttagaggaagatga
 ctggccgcggctgcaaggctgggaaagacttatagctcacttaattgttaaagtagcaggagaatttctgttccgggagcagacttta
 gggctgcaatatttttacaagctgaacataaccactttgatgagggttcatgtgcatgtagtagtgggggaccgtttgtactcccagga
 atgtgtgaatattgtagaacaggctttaacaaagtgttgagggaacttacagagcctacttatgaggtgtctttaagcctgccatttctaag
 aaaggaaagtatgctagagatggaattgactttgtaacaaacttattaatgccaaaactgtatcctaattgtgtttactctgttacaaattttcag
 agtatgagtatgtatgtaattcttagcttacagaaggaacatgcataaaaaagctttaacaaatactgcagatgaagggtgagggcaccagt
 acaaattcagagtgggaccagaacaaaaaacagaaaactgtaccgtgcaggagaaaagttgttagttgtgtgactctttaatag
 agcgtggcatatttacagaaaacaagtgaagcaggtagattggctaaagagtagctctcagtggaagtgtagcaggagtgacc
 agattaaaacagctttaacttttagctatttttaaatgtaatctccagaatatttgtgtgaattgttaactagaccagactattaattttaacatca
 aagaaaacagaatttgaagatattttacagaatgattatgacctgtatgtctggaagtttttagcttggcttggttaaagagtgggaa
 agcgtataaccatttggctttttggaccgcctactactgtgtaaaacaaatatagctatgagcttggcactgcagtacccagttatggtatggt
 aattggaataatgaaaactttccttttaacgatgtgcccgcataaatctatttttgggatgagggaacttataaaagtactgttgggaagcc
 gcaaaagccatttttaggaggggcaaaattgcagagtggatcaaaaaataagggcagtgtagaagttcagggcactcccgttctgacact
 agcaacaatgacatgactcgcgtggtgtcaggcaacactgttacgcttaccatcagagggcgctaaaggatcgcagtgttgagittgact
 tgactgtgagatgctctaagcccttggattaattcccgtgaggaatgaagcagtggtgttctgtgtcagcagcactcctgtgatgtttct
 caagggtggaaggagctgtgagttgtgtgtgtggaaggtgacagaacagggaattgctatgacttctcagaaaacgaagatctccggg
 gactcagacccctctgtgaacagccagtgacctcgaagacatcagcattgaagaaaacgatacgggcattagcaactgcagcgggtg
 gaacattacagacctccctcacaacaacaactgggagtcctctgaggatagcgggtccccgccccgcagcagcacccttgcactt
 cctgagcgaaggcgaagtccccccggacagcagtggaactgaacacctcagtaaacctgttaaatgctttaaactggcctatgtatata
 gtggattgggttgggactaaggctcaaaagacctgtgtgtgtgcttagagcatgatacagaagttcagtgactgttctttgtgttaagttt
 agaggtgttgcctatgttaattgaaaacagtattaccagcccgatgtattaggtgctctgctcatgctgagtgactaatccttttgatgtgct
 tacctgtaaagaaatgtcgagagctgagtgactgtggagttttgtaagtatgactga

FIGURE 36

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MEMYRGVIVQVNFNFTDFANDNWWCCFFQLDVEDDWPELRGPERLMAHYICKVAALL
 DTPSGPFLGCKYFLQVEGNHFDNGFHHVVGPFLLTPRNVCSAVEGGFNKVLADFTSP
 TITVQFKPAVSKKGKYHRDGFDFVTTYLMPKLYPNVIYSVTNLEEYQYVCNSLCYRRT
 MHKRQQPCNGGSVEQSSVSLYSDGEPANKKSKVTVRGEKFCSLVDSLERNIFNENK
 WKETDFKEYAALSASVAGVHQIKTALTLAVSKCNSPAYLGEILTRPNTINFNIRENRIA
 NIFLSNNYCPLYAGKMFLAWVQKQLGKRNTIWLFGPPSTGKTNIAMSLASAVPTYGM
 VNWNENFPFNDVPYKSIILWDEGLIKSTVVEAAKSILGGQPCRVDQKNKGSVEVSGT
 PVLITSNSDMTRVVCGNVTVLVHQRALKDRMVRFDLTVRCSNALGLIPADEAKQWLW
 WAQNNACDAFTQWHLSSDHVAWKVDRITLCHDFQSEPEPDSELPSSGESVESFDRSD
 LSTSWLDVQDQSSSPENSDEVWDIADLLSNEHWIDDLQEDSCSPRCSTPVAVAEPVE
 VPTGTGGGLKWEKNYSVHDTNELRWPMFSVDVWVGTVNKRPPCCLEHDKFEGVHC
 SLCLSLEVLPLIEKSILVPDTRLCSAHGDCTNPFVDLTCKKCRDLSGLMSFLEHE

FIGURE 37

atggagatgtatagaggagttatcaggtaaatgctaactttactgactttgctaacgataactgggtgctgctttttcagttagatgtagat
 gactggcggagccttagaggacccgagaggccttagggctactacatttgtaaagtggctgctttactggacacccccctggccttttt
 ggggtgcaagtatttttgcagagtgaggaggcaaccattttgataatgggtttcacattcatgtggtgattgggggaccatttctaactcctagaa
 atgtgtgttctgctgtggaaggggttttaacaaagtgttagcagactttacaagccctactatcactgttcagtttaaacctgctgttagtaaa
 aaggggaaatatcatagagatggcctttgactttgtaacttactatttaatgccaaaactgtaccctaattgtatttacagttaactaacctagaa
 gaataccagtatgtatgttaattctctgtttataggagaacaatgcataaaaggcaacaaccatgtaatgggggctgtgtgaacagtcagat
 gtttctttgtattctgatggagaacctgcaaacaaagaaagcaaggtgttaactgttagaggggagaaattctgctctttggtagattcacttat
 agaaaagaatatatttaataaaaacaaatggaagaaacagactttaaggagtagtgccttaagtcttctgtagcaggagttcaccaaaa
 ttaaaactgctctcactcttgagtgtaaaagtgttaactctcagcttatctaggagaattttaactagacctaactataaattttaacatta
 gagaaaacagaattgctaacattttttaagtaacaactattgccctctgtatgctgggaaaatgttttagcttgggtgcagaacaagcttggg
 aaaaaggaatactatttggctgtttggctctccagtagtgtaaaactaacattgcaatgagtttggcctctgctgttccaacatatggcatggg
 aaactggaacaatgaaaattttccgtttaatgatgtacctataaaaagcattattttgtgggacgagggactaataaagtcacaggtgttgaa
 gcagcaaaaagtattttaaggaggtcagccatgtagagttgatcagaaaaataaggcgagcgtgggaagtcagtgccactcctgtgtcatta
 ccagcaacagtgacatgactagagtggtgtgcggiaacactgtgacctgttccatagcgagctttgaaaggatcgatggctgatttgc
 ctgactgtgagatgctctaatgctctgggattaatccctgctgatgaggccaagcagtggtttgtgggcacagaataacgcgtgtgacg
 ctttactcaatggcatctgtctagtgtacacgttcttgaaagtggaccgtacaacgctgtgtcatgacttccagagcgagccggagcca
 gacagcgaaactccctagtagcggggagtcagttgagagctttgacagaagcgacctctcaacctcctggcttgacgtccaagatcagica
 agcagtcctgaaaactctgatgtcagtgaggacatcgagacctcctctcaaacgagcactggatcgacgacctgcaagaagatagctg
 tccccgcccccgtgcagcaccacagtgagcagtggtgagccagtcgaagttccaccgggaaccggaggaggactgaagtgggaaaa
 aaactattctgttcagataactaatgaactgagatggcctatgtttctgttgattgggtgtgggtacaaatgttaaacgtccagtgctgttt
 agagcacgataaggagtttggtgtgcattgcagttgtgtttgtctttggagggtttgcttatgcttattgaaaaagcattctggtaccagaca
 ctctaagatgttctgctcatggtgattgtactaatcctttgacgtgcttacgtgtaagaaatgccgagatctgagtggttaaatgagctttttaga
 gcatgagatga

FIGURE 38

MDMFRGVIQLTANITDFANDSWWCSFLQLDSDDWPELRGVERLVAIFICKVAAVLDN
 PSGTSLGCKYFLQAEGNHYDAGFHVHIVIGGPFINARNVCNAVETTFNKVLGDLTDPS
 MSVQFKPAVSKKGEYYRDGFDFVTNYLMPKLYPNVIYSVTNLEEYQYVCNSLCYRKN
 MHKQHMVSTVDASSSSFMNDMYEPATKRKSKCTVKGEKFRNLVDSLIERNIFSESKW
 KEVDFNEFARLSASVAGVHQIKTAITLAVSKCNSPDYLFQILTRPSTIHFNIKENRIAQIF
 LNNNYCPLYAGEVFLFWIQKQLGKRNTVWLYGPPSTGKTNVAMSLASAVPTYGMVN
 WNNENFPFNDVPYKSLILWDEGLIKSTVVEAAKSILGGQPCRVDQKNKGSVEVTGTPV
 LITSNSDMTRVWVYTVTLVHQRAKDRMVRFDLTVRCSNALGLIPADEAKQWLWWA
 QSQPCDAFTQWHQVSEHVAWKADRTGLFHDFSTKPEQESNAKSSGKSNDSSFAGSDLA
 NLSWLDVEDTSSSSSSEDLSDGLAELVSNDNWLQSGCPPTRCSTPVTVVEPKQVSPGTGG
 GLTKWEKNYSVHQENELAWPMFSVDWVWGS HVKRPVCCVEHDKDLVLPNCNLCLS
 LEVLPMLIEKSINVPDTRLCSAHGDCTNPFVLTCKKCRDLSGLMSFLEHDQ

FIGURE 39

atggacatgttccggggagttattcaactgactgctaacattactgactttgctaacgatactggtggtgtagcttttgcagttagattcaga
 tgactggccggagctgagagggtgctgagagactagttgctattttattgttaaagtagctgctgtattagacaacccctctggtacatctctt
 ggctgtaaaatttttgcaggcagagggttaactatgatgctggtttcatgtgcatattgttattgggggaccccttcattaatgctagaatg
 tatgtaatgctgttgaaactacttttaacaagggtgctgggagatcttacggatcctctatgtctgtacaatttaaacctgctgaagcaaaaag
 ggagagtattacagagatggtttgactttgtgactaactacttaatgccaaaactgtatcctaattgtattactctgttaacaaacctagaaga
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 ccattactcttgtagtgcataaagttaattcaccagactatctgtttcaaatttaactagacccagtagtattcattttaataataaagaaacag
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 gatgctctaattgctctgggattattcccgctgatgaagccaagcagtggtgtggtggcacagagtcagccgtgtgtagcattaccaca
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 cccagttacagtggttgagccaaagcaagttccccgggaaccggaggaggattaacaaagtgggaaaaaatttattcagttcatcaag
 aaaatgagctagcatggcctatgtttatgttagactgggtgtgggttctcatgtaaaacgccctgtgtgtgtgtagagcatgataaggac
 ctgtactgcctcattgtaattgtgtgtctctcgaagtgtgcttatgtaattgagaaaagtattatgttccagatactttgcgatgttcagc
 tcatggtgattgtactaatccatttgatgttttaactgtgaagaagtgtagagatctcagtgccctatgagtttttagaacatgaccagtag

FIGURE 40

MELFRGVLQVSSNVLD C ANDNWCSLLDLTSDWEPLTHTNRLMAIYLSSVASKLDF
 TGGPLAGCLYFFQVECNKFEEGYHHV VIGGPGLNPRNLTVCEGLFNNVLYHLVTEN
 VKLKFLPGMTTKGKYFRDGEQFIENYLMKKIPLNVVWCVTNIDGYIDTCISATFRRGA
 CHAKKPRITTAINDTSSDAGESSGTGAEVVPINGKGTKASIKFQTMVNWLCENRVFTE
 DKWKLVDFNQYTLLSSSHSGSFQIQSALKLAIFYKATNLVPTSTFLLHTDFEQVMCIKDN
 KIVKLLLCQNYDPLLVGQHV LKWIDKKCGKKNLWFGPPSTGKTNLAMAIAKSVPV
 YGMVNWNNENFPFNDVAGKSLVWDEGIKSTIVEAAKAILGGQPTRVDQKMRGSVA
 VPGVPVITSNGDITFVVS GNTTTTVHAKALKERMVKLNFTVRCSPDMGLL TEADVQ
 QWL TWCN AQSWDHYENWAINYTFDFPGINADALHPDLQTTPIVTDTSISSSGGESSEEL
 SESSFFNLITPGA WNTETPRSS TPIPGTSSGESFVGSSVSSEVVAASWEEAFYTP LADQFR
 ELLVGVDYVWDGVRGLPVCCVQHNNSSGGGLGCPHCINVGAWYNGWKFREFTPDL
 VRCSCHVGASNPFSVLTCKKCA YLSGLQSFVDYE

FIGURE 41

atggagctatttagaggggtgcttcaagtttcttaatgttctggactgtgctaactgggtgctcttactggatttagacacttct
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 ggggtgcttgactttttcaagtagaatgtaacaaatttgaaaggctatcatattcatgtggttattggggggccagggttaaaccaccaga
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 gtatgtatgctggggagtgtagcggcacaggggcagagggtgtgccaattaatgggaagggaactaaggctagcataaagtttcaaaact
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 ctgtgctaacctgcaaaaaatgtgcttacctgtctggattgcaagctttgtagattatgagtaa

FIGURE 42

MELFRGVLQVSSNVLD C ANDNW WCSLLD LDTSDWEPLTHTNRLMAIYLSSVASKLDF
 TGGPLAGCLYFFQVECNKFEEGYHHVVGPGPLNPRNLTMCEGLFNNVLYHLVTEN
 VKLKFLPGMTTKGKYFRDGEQFIENYLIKKIPLNVVWCVTNIDGYIDTCISATFRRGAC
 HAKKPRITTAINDTSSDAGESSGTGAEVVPFNGKGTAKSIKFQTMVNWLCENRVFTED
 KWKLVDNFQYTLSSSHSGSFQIQSALKLAIFYKATNLVPTSTFLLHTDFEQVMCIKDNK
 IVKLLLCQNYDPLLVGQHVWKWKCKGKNTLWFYGPSTGKTNLAMAJAKSVPVY
 GMVNWNENFPFNDVAGKSLVWDEGIKSTIVEAAKAILGGQPTRVDQKMRGSVAV
 PGVPVVTNSGDIITFVSGNTTTTVHAKALKERMVKNFTVRCSPDMGLLTEADVQQ
 WLTWCNAQSWDHYENWAINYTFDFPGINADALHPDLQTTPIVTDTSISSSGGESSEELS
 ESSFLNLITPGA WNTETPRSSSTPIPGTSSGESFV GSPVSSEVVAASWEEAFYTPLADQFRE
 LLVGVDYVWDGVRGLPVCCVQHINNSGGGLGLCPHCINVGAWYNGWKFREFTPDLV
 RCSCHVGASNPFSVLTKCKCAYLSGLQSFVDYE

FIGURE 43

atggagctatttagaggggtgcttcaagtttcttaattgttctgactgtgctaacgataactgggtggtgctcttactggatttagacacttct
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 aggggtgctgtactttttcaagtagaattgaacaaattgaagaaggctatcatattcatgtggttattggggggccagggttaaaccaccaga
 aaccctactatgtgttagaggggttatttaataatgtactttatcaccttgtaactgaaaatgtgagctaaaattttgccaggaatgactaca
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FIGURE 44

MFSIINPSDDFWTKDKYIMLTIKGPVEWEAEIPGISTDFFCKFSNVPVPHFRDMHSPGAP
 DIKWITACTKMIDVILNYWNNKTAVPTPAKWYAQAENKAGRPSLTLLIALDGIPTATIG
 KHTTEIRGVLIKDFFDGNAPKIDDWCTYAKTKKNGGGTQVFSLSYIPFALLQIIRPQFQ
 WAWTNINELGDVCDEIHRKHIIISHFNKKPNVKLMLFPKDGTRISLKSFLGTIEWLSD
 LGIVTEDAWIRRDVRSYMQLLTLTHGDVLIHRALSISKKRIRATRKAIIDFLAHIDTDFEY
 ENPVYQLFCLQSFPILAGTILYQWLSHRRGKKNTVSFIGPPGCGKSMLTGAIENPLH
 GILHGSNTKNLRAYGQVLVLWWKDISINFENFNIKSLLGGQKIIFPINENDHVQIGPCP
 IATSCVDIRSMVHSNIHKINLSQRVYNFTFDKVI PRNFPVIQKDDINQFLFWARNRSINC
 FIDYTVPKIL

FIGURE 45

atgtttccataataatccaagtgatgttttggactaaggacaaatatcatgttgactatcaaaggccccgtggagtgggaggcagaa
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 aaacaaatttcgtctgggccagaaacggttctataaattgtttatgactacacgggttccaaaattttat

FIGURE 46

5' - ttggccactccctctctgcgcgtcgtcgtcactgaggccggcgaccaaaggctcggcga - 3'

FIGURE 47

5' - ggcgggtggggctcggcgctcgtcgtcgtcggcgggcggg - 3'

FIGURE 48

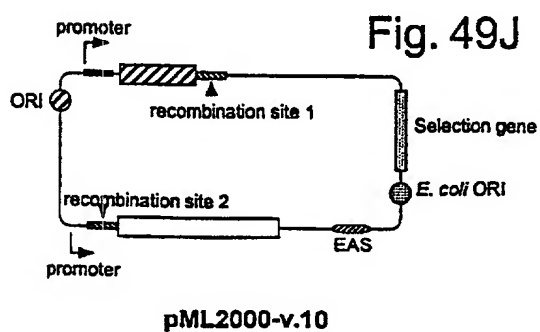
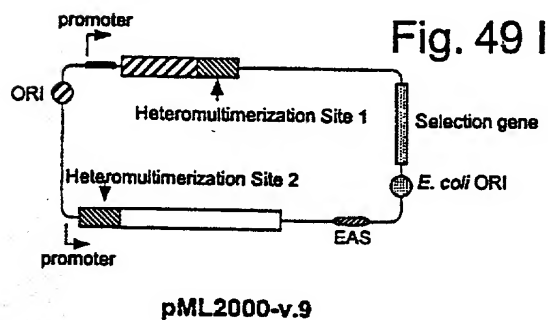
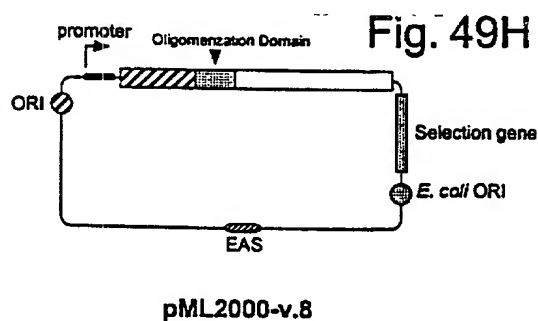
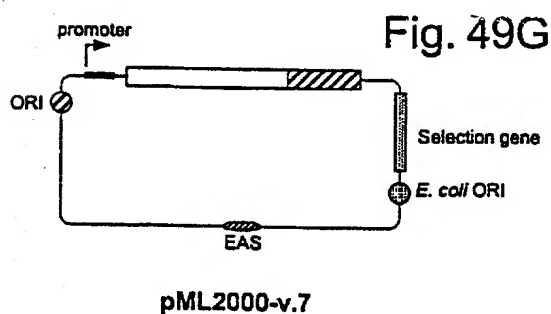
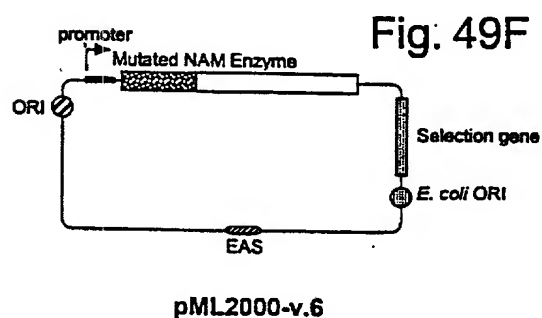
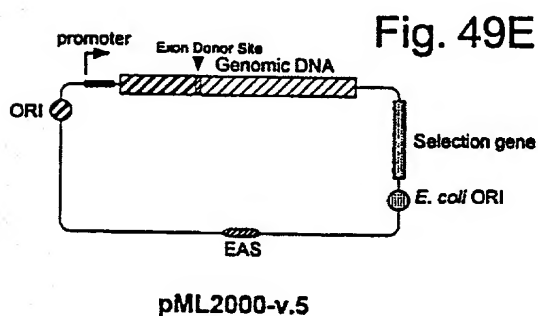
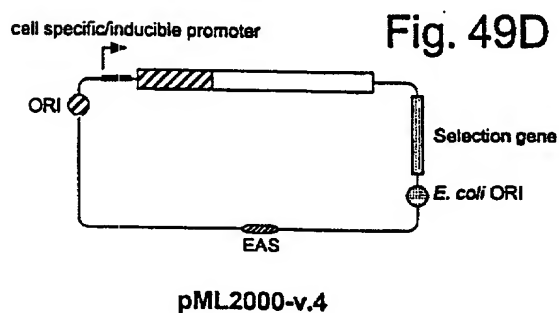
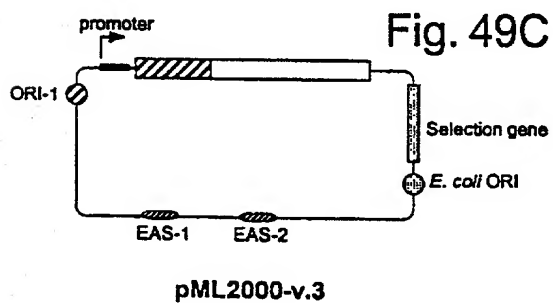
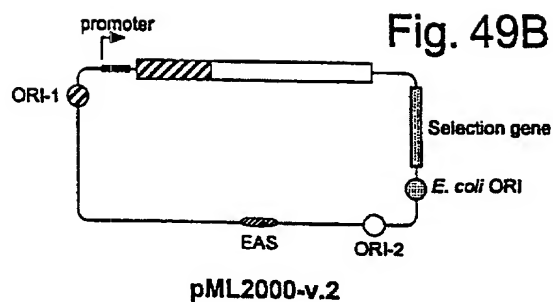
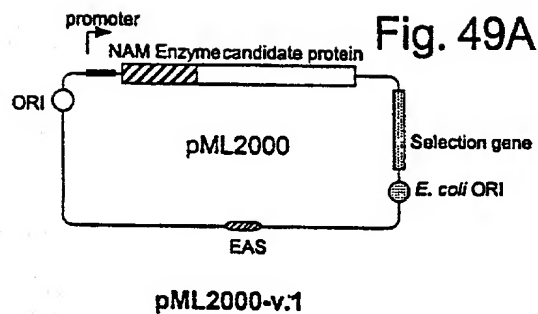
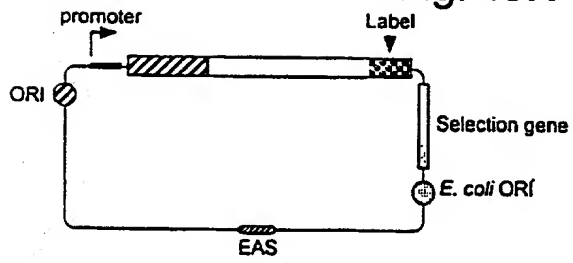
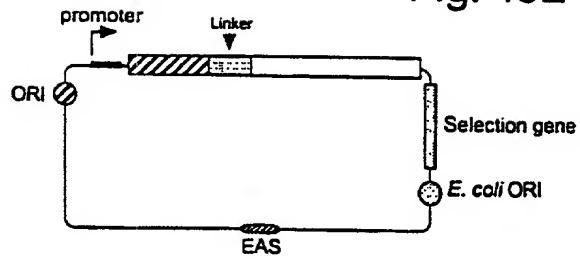


Fig. 49K



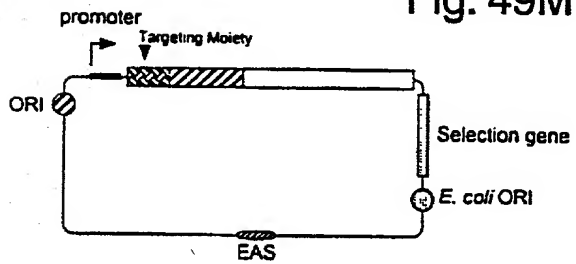
pML2000-v.11

Fig. 49L



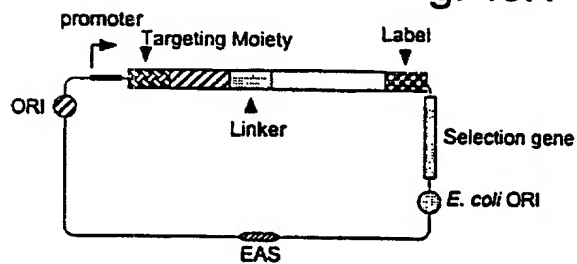
pML2000-v.12

Fig. 49M



pML2000-v.13

Fig. 49N



pML2000-v.14